U.S. Army
Corps of Engineers

US Army Corps of Engineers
Emergency Operations
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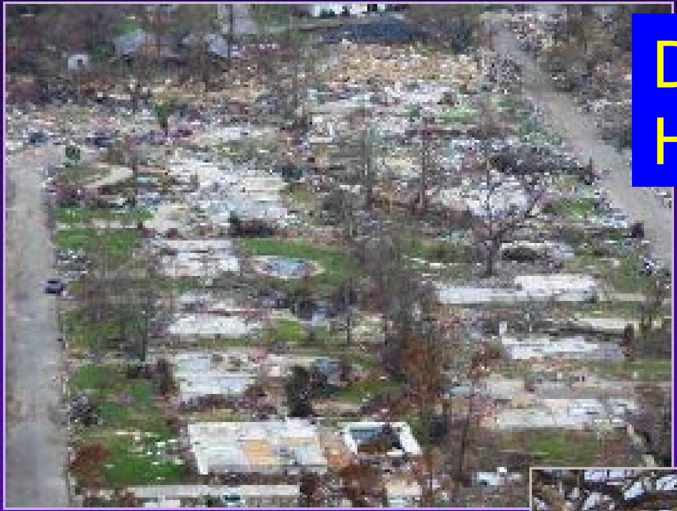
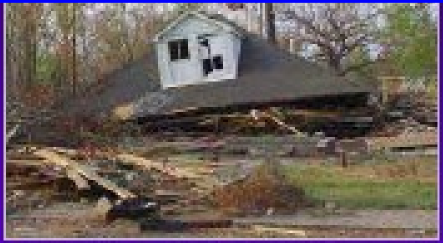
Emergency Operations

Commodities Water and Ice Mission

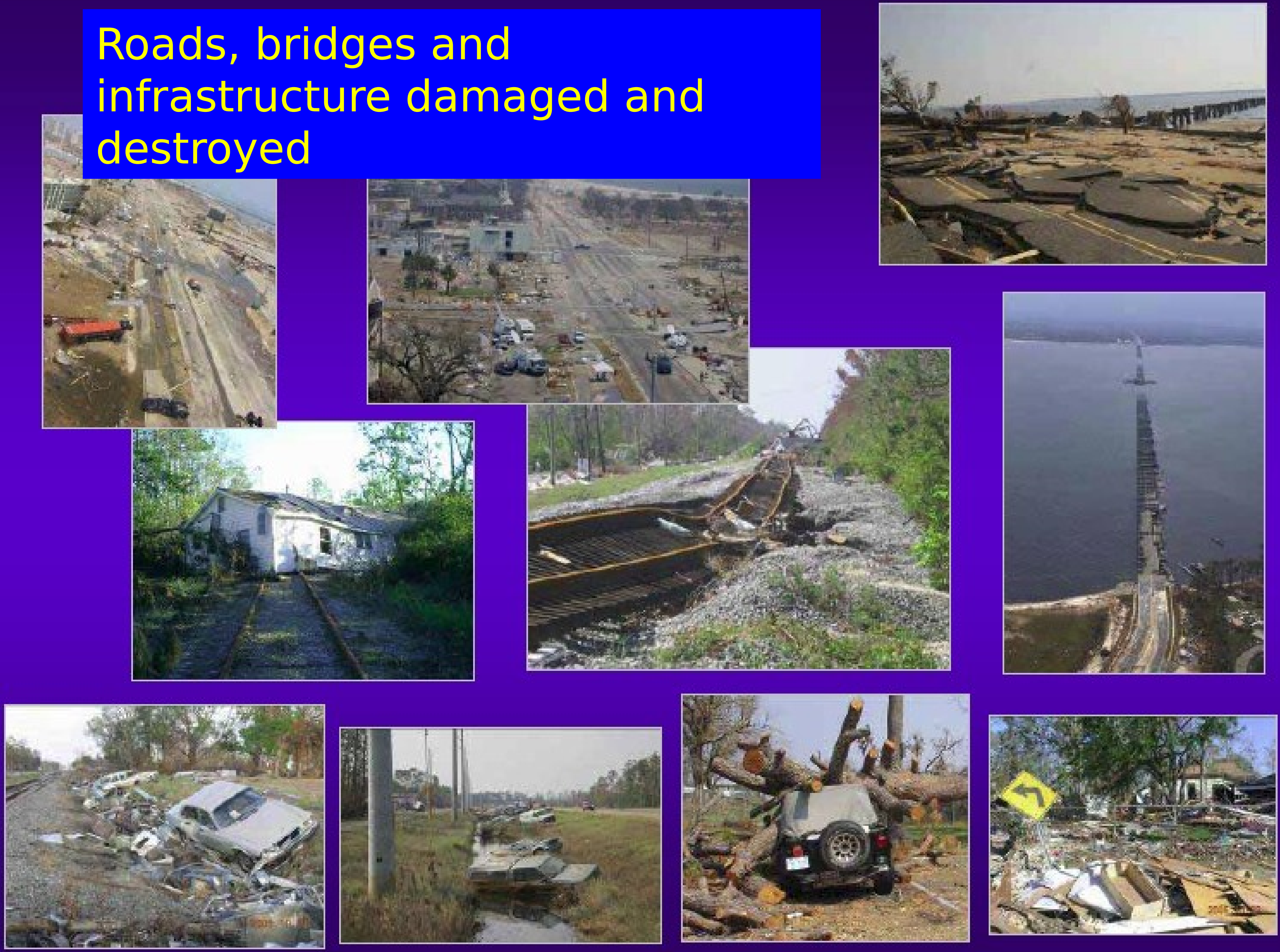
"An Overview"

Destruction Happens

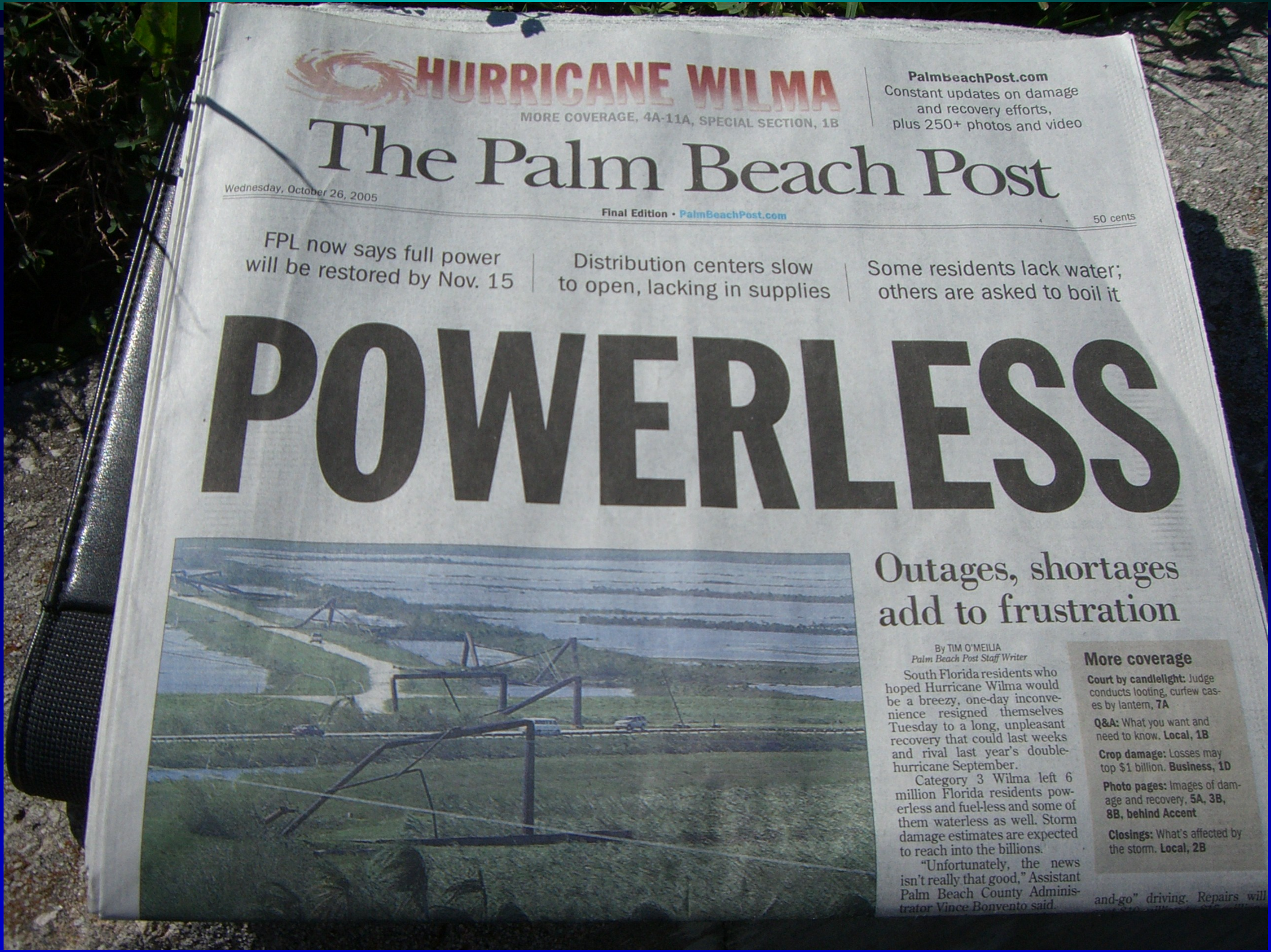




Roads, bridges and infrastructure damaged and destroyed



Power out in much of the area



HURRICANE WILMA

MORE COVERAGE, 4A-11A, SPECIAL SECTION, 1B

PalmBeachPost.com
Constant updates on damage
and recovery efforts,
plus 250+ photos and video

The Palm Beach Post

Wednesday, October 26, 2005

Final Edition • PalmBeachPost.com

50 cents

FPL now says full power will be restored by Nov. 15

Distribution centers slow to open, lacking in supplies

Some residents lack water; others are asked to boil it

POWERLESS

Outages, shortages add to frustration

By TIM O'MEILIA
Palm Beach Post Staff Writer

South Florida residents who hoped Hurricane Wilma would be a breezy, one-day inconvenience resigned themselves Tuesday to a long, unpleasant recovery that could last weeks and rival last year's double-hurricane September.

Category 3 Wilma left 6 million Florida residents powerless and fuel-less and some of them waterless as well. Storm damage estimates are expected to reach into the billions.

"Unfortunately, the news isn't really that good," Assistant Palm Beach County Administrator Vince Bonvento said.

More coverage

Court by candlelight: Judge conducts looting, curfew cases by lantern, **7A**

Q&A: What you want and need to know. **Local, 1B**

Crop damage: Losses may top $1 billion. **Business, 1D**

Photo pages: Images of damage and recovery, **5A, 3B, 8B, behind Accent**

Closings: What's affected by the storm. **Local, 2B**

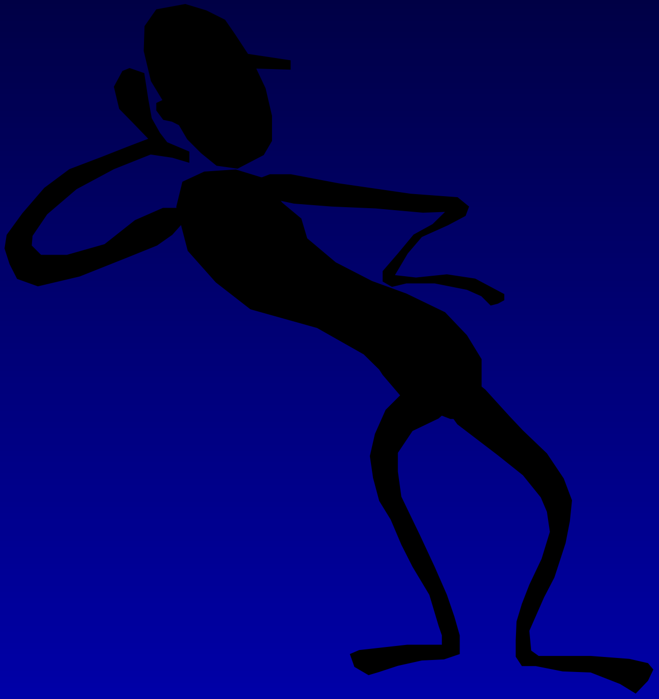
and-go" driving. Repairs will

Sometimes there is no gas

Alive with pleasure!
Self Serve

Now it’s Corps time

What do I as Local Government Liaison tell my assigned city or county about water and ice needs?



Container size varies but

Reddy Ice
Premium Purified Water
Premium Purified Water
M & B
Baltimore - North

needs per person remain the sar

General Facts:

Ice: 8# (1bag) per person per day

- 40,000 # per Truck Load
- 20 Pallets per Truck, 2000# per Pallet
- 250 - 8# bags per pallet, 5000 Bags per Truck
- 25 Trucks = 1 million #

Water: 4 liters or 1 gal per person (3.79 liters per gal)

- 18,000 liters or 4,750 gal per truck
- 20 Pallets per Truck, 900 liters per Pallet, 237 gal per Pallet, 1900 # per pallet

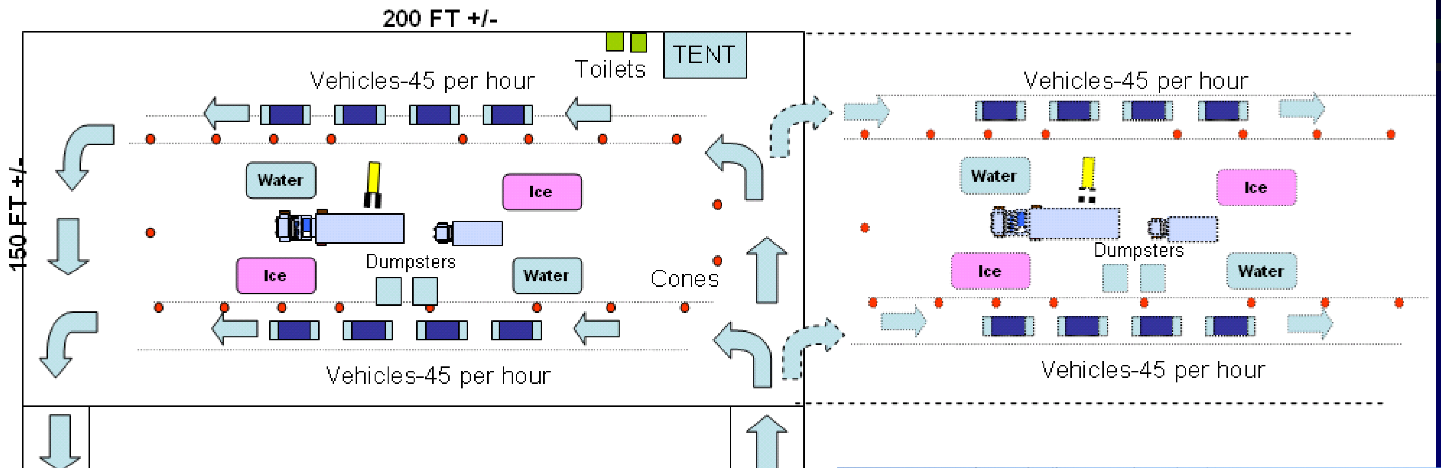
212 Trucks = 1 Million Gal

- Make sure your county/city is computing correct ice and water needs and communicating them in a timely manner

Now…
How do I pass out all this incoming ice and water ???

Insert cover page of Ice and Water manuals here

Municipality Distribution Point
SITE FOR SERVING 4000 to 8000 PEOPLE
(Loading Directly Into Individual Vehicles)


200 FT +/-
150 FT +/-
Toilets
TENT
Vehicles-45 per hour
Water
Ice
Dumpsters
Water
Ice
Cones
Vehicles-45 per hour
Vehicles-45 per hour
Water
Ice
Dumpsters
Ice
Water
Vehicles-45 per hour

Note: Individual vehicles drive through and Ice & water is loaded into their trunks. Recommend 6 gallons water and 5 bags of ice per vehicle to reduce Return trips. Suggest they share any excess with their neighbors..

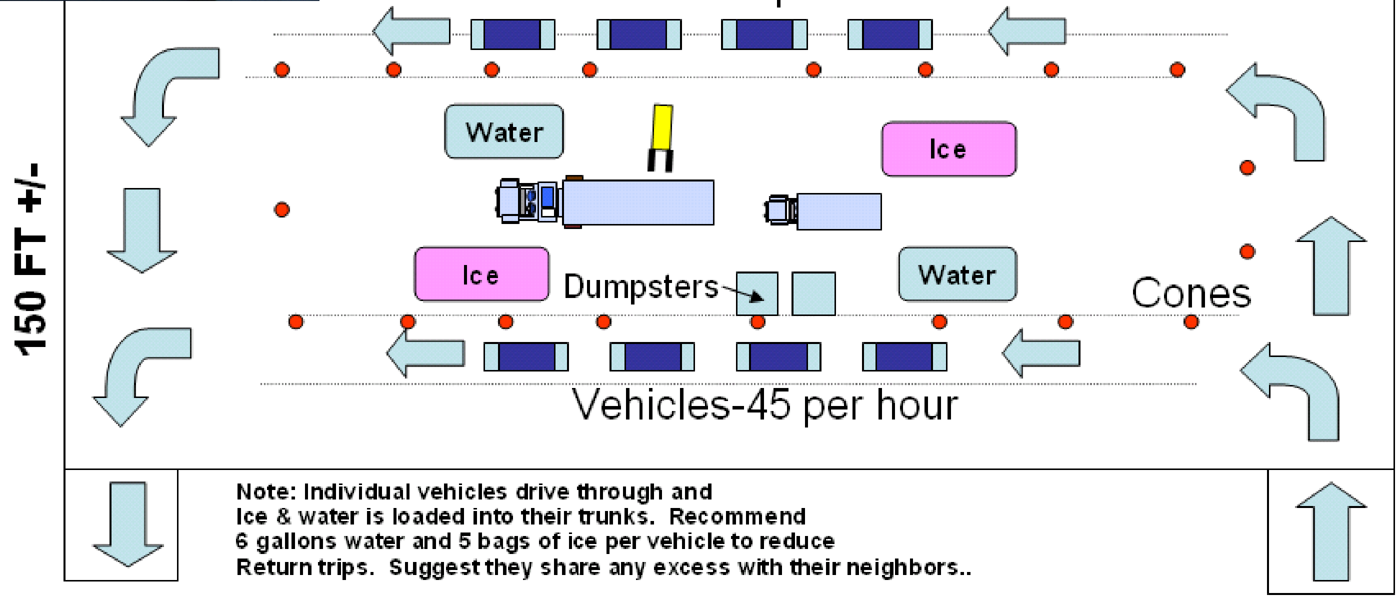
TOTAL = 80,000# OF ICE AND 10,000 GAL OF WATER PER DAY.

Resources Requirements

People Served	20' trucks		Forklift	Pallet Jacks	Roll-Backs	Lights	Toilets	Dumpster	Tarps 20x40	Traffic Cones	Pers		
	Ice	Water									Operators	Laborers	Runners
4-8K	4	4	2	4	-	-	2	4	4	40	2	40	-
									Night Shift				-

* Trucks can make multiple trips to the staging/supply areas

Municipality Distribution Point
SITE FOR SERVING 2000 to 4000 PEOPLE
(Loading Directly Into Individual Vehicles)

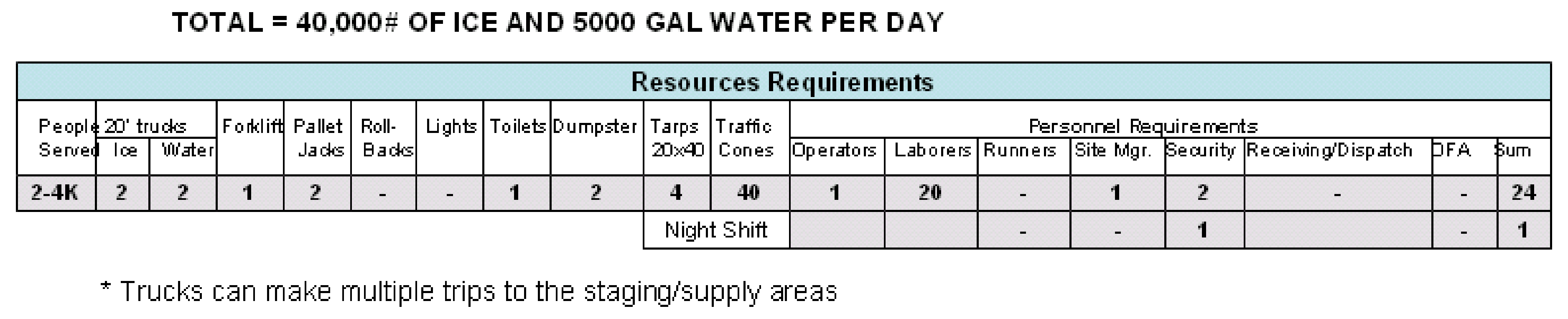

200 FT +/-
Toilets
TENT
Vehicles-45 per hour
Water
Ice
Ice
Dumpsters
Water
Cones
Vehicles-45 per hour
150 FT +/-

Note: Individual vehicles drive through and Ice & water is loaded into their trunks. Recommend 6 gallons water and 5 bags of ice per vehicle to reduce Return trips. Suggest they share any excess with their neighbors..

TOTAL = 40,000# OF ICE AND 5000 GAL WATER PER DAY

Resources Requirements																		
People Served	20' trucks		Forklift	Pallet Jacks	Roll-Backs	Lights	Toilets	Dumpster	Tarps 20x40	Traffic Cones	Personnel Requirements							
	Ice	Water									Operators	Laborers	Runners	Site Mgr.	Security	Receiving/Dispatch	DFA	Sum
2-4K	2	2	1	2	-	-	1	2	4	40	1	20	-	1	2	-	-	24
									Night Shift				-	-	1		-	1

* Trucks can make multiple trips to the staging/supply areas



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									Night Shift				-	-	1		-	1

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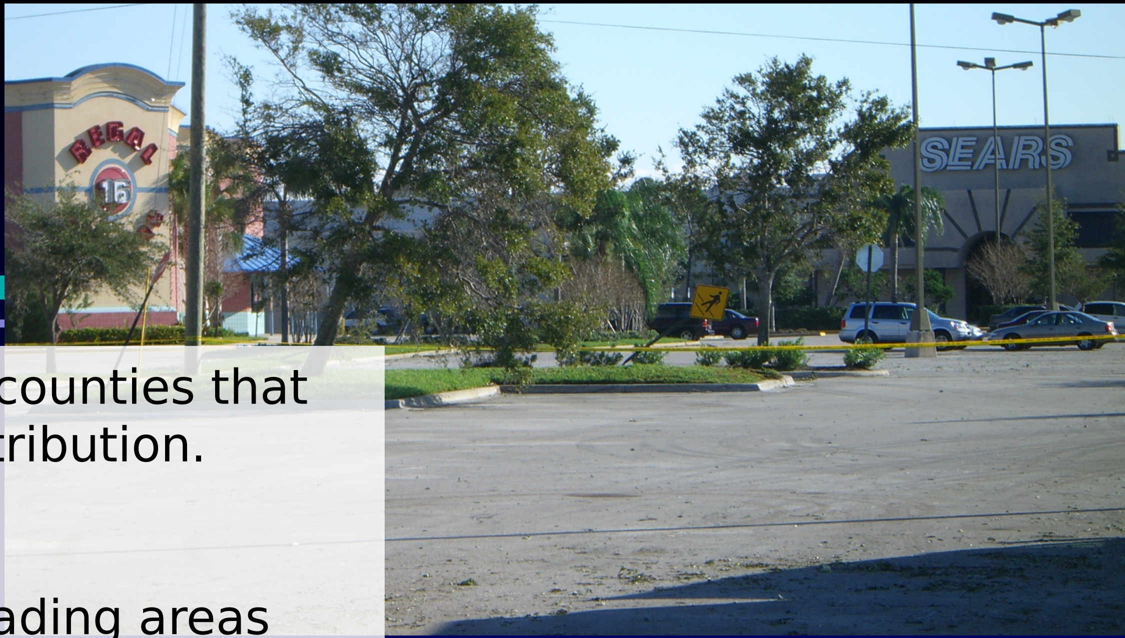


There are many areas in most counties that are ideal to fit the need for distribution.

They include:
- ✓ School-bus loading and unloading areas with adjacent parking
- ✓ Athletic field parking areas
- ✓ Civic Center Parking Areas
- ✓ Vacant shopping center parking areas
- ✓ Fairground parking areas.

None of the areas listed above have the same layout or areas suitable for parking in the same configuration. But, all can be adapted to meet the critical needs of the public, and are well known sites that the public is familiar with.

Avoid fields like this for PODS

In addition to the area needed for the trucks, planning must include area for unloading, refueling refrigerated containers, some sort of covered storage area, and ingress and egress for the distribution to the public.

Here’s the POD kit - Where’s the %*#* forklift???

CATERPILLAR

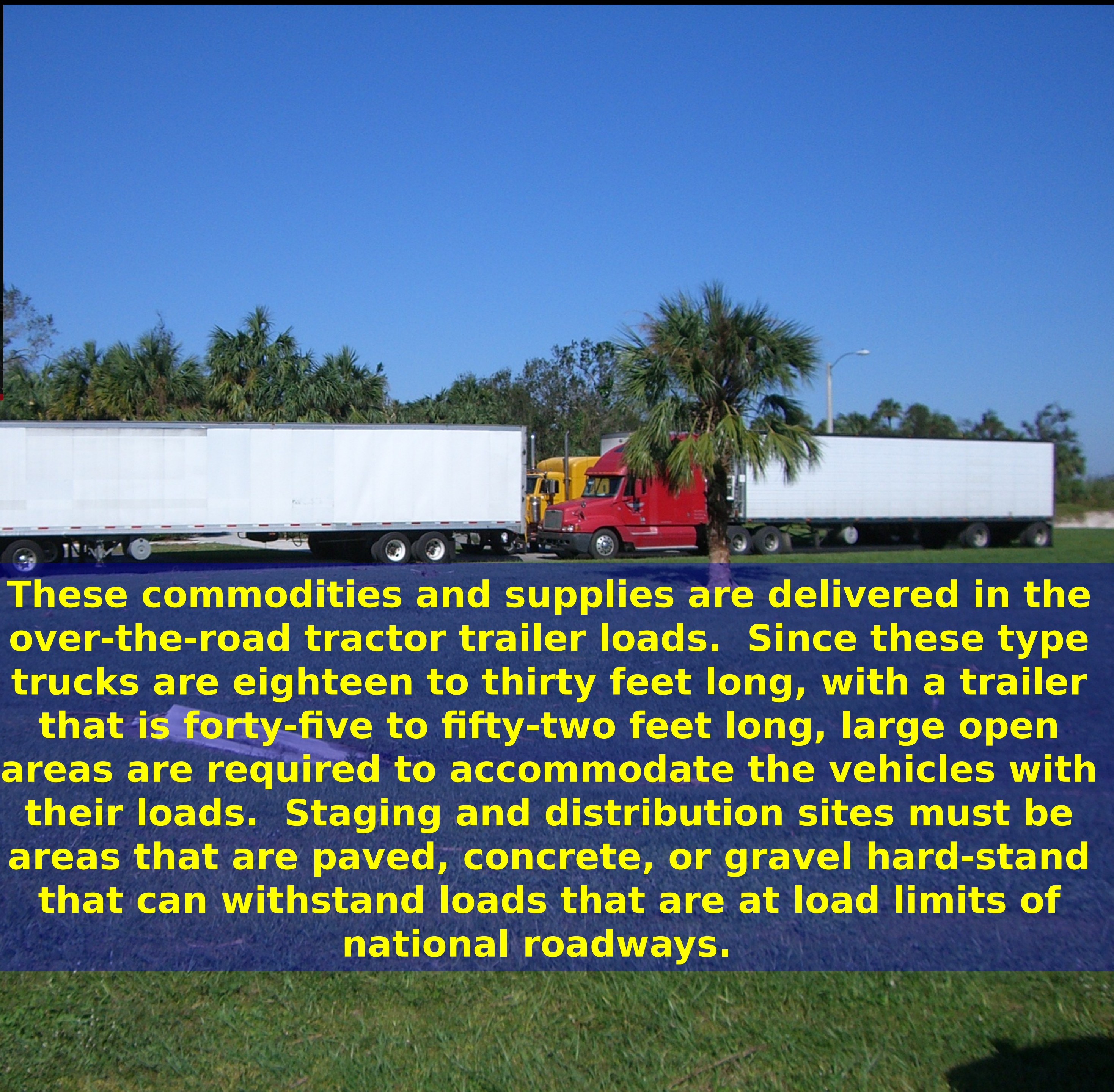
CATERPILLAR
FRAGILE
DO NOT DROP

Traffic Flow and Control

Traffic cones, plastic flagging, etc. will be required to maintain traffic control

The quickest way to provide items to the public is for the victim to remain in their car and as they drive through, volunteers/ workers load bottled water, ice, and other supplies, directly into the victim’s trunk, back seat, or pick-up truck.

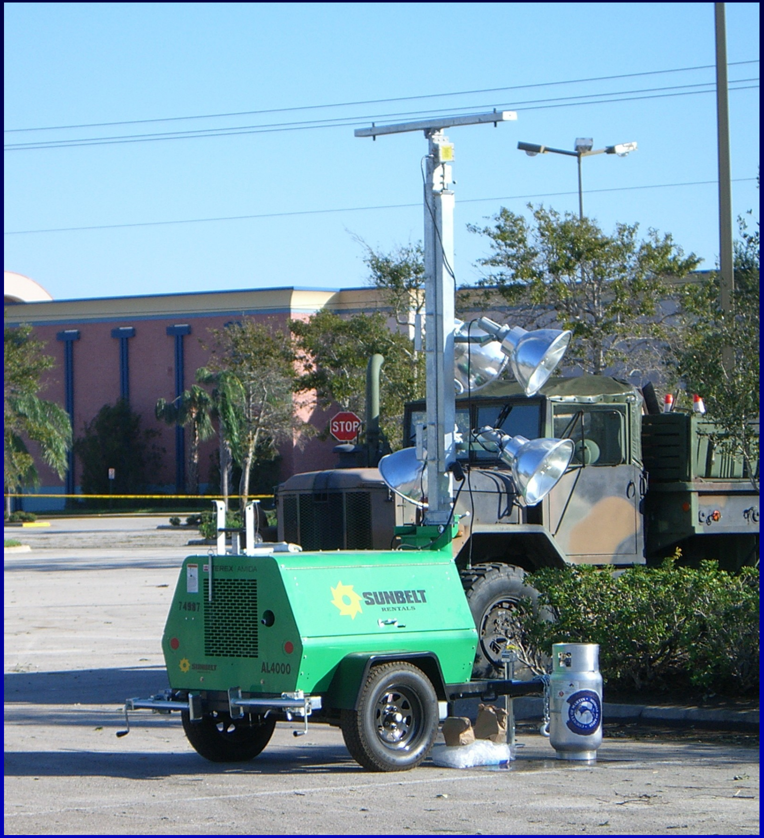
IAP WORLDWIDE SERVICES
US Army Corps of Engineers
USACE DISASTER RELIEF VEHICLE
HURRICANE Wilma
ICE



These commodities and supplies are delivered in the over-the-road tractor trailer loads. Since these type trucks are eighteen to thirty feet long, with a trailer that is forty-five to fifty-two feet long, large open areas are required to accommodate the vehicles with their loads. Staging and distribution sites must be areas that are paved, concrete, or gravel hard-stand that can withstand loads that are at load limits of national roadways.

Lighting Needs

Also assume that the electricity will not be available, thus the need for a minimum of two light-sets (generator powered with retractable lights that extend up at least 12-15 feet).


SUNBELT
RENTALS
AL4000
STOP

Site Security

DEPUTY
SHERIFF

The assumption must be made that distribution to the general public will not occur late into the night, but deliveries to the site may be required at any time during the day or night, thus 24-hour site security will be

Getting Product to the Site

Onward movement from Staging Area to Distribution Site will need to be facilitated.
Suggestions below, in order of preference, are:

- Police escort all the way from Staging Area to Distribution Site.
- County/City personnel escort all the way.
- Truck driver is met at a location known to him, (highway intersection), near Distribution Site and is escorted the rest of the way by one of the above.
- Provide driver with **accurate and detailed maps**, initialed by local jurisdiction and accepted by truck driver.

QUESTIONS?